Appl. No. 09/766,824   *PATENT*
                                                IBM Docket No. FR919990111US1

Amendments to the Claims:

1.   (Currently Amended) A method of transmitting a loopback cell of a connection
      established between a source ATM device and a destination ATM device of an ATM
      network, said loopback cell being returned at one of at least one switching nodes located
      on the connection route, said loopback cell entering said switching node by an input port
      of an input adapter, before being switched to an output adapter as would a normal cell of
      said connection, and being then switched backward to said input adapter and exiting the
      switching node by said input port of said input adapter instead of an output port of said
      output adapter as would [[a]] the normal cell of said connection,
      said method comprising the steps of;

      setting a loop control bit in said output adapter by a control point of said switching node
      if loopback is permitted in said switching node;

      detecting in said output adapter whether an incoming cell includes a loopback condition,
      and if so

      appending to said incoming cell a specific routing label indicating that the incoming cell
      is a cell to be returned on the connection; and

      using said routing label by a protocol engine [[of]] on said output adapter to transmit said
      cell back to said input adapter, then over said ATM network from said input port of said
      input adapter like [[a]] the normal cell traveling on the connection in the opposite
      direction.

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2.   (Currently Amended)   The method according to claim **1**, wherein said specific routing
      label is appended to said incoming cell only if [[a]] the loop control bit is set by [[a]] the
      control point of said switching node in said output adapter.

3.   (Previously Presented)   The method according to claim **2**, wherein said specific routing
      label is an identification of said output port to indicate to the protocol engine of said output
      adapter that said incoming cell should be treated as a normal cell of said connection
      entering into said output port as if it were traveling on the connection in the opposite
      direction.

4.   (Currently Amended)   ~~The method according to claim 3, wherein~~ A method of
      transmitting a loopback cell of a connection established between a source ATM device and
      a destination ATM device of an ATM network, said loopback cell being returned at one of
      at least one switching nodes located on the connection route, said loopback cell entering
      said switching node by an input port of an input adapter, before being switched to an output
      adapter as would a normal cell of said connection, and being then switched backward to
      said input adapter and exiting the switching node by said input port of said input adapter
      instead of an output port of said output adapter as would the normal cell of said connection,
      said method comprising the steps of:

          detecting in said output adapter whether an incoming cell includes a loopback condition,
          and if so

          appending a loopback flag ~~is appended~~ to said incoming cell if ~~said~~ a loop control bit is
          set in order to indicate to the protocol engine of said output adapter that said
          identification of said output port has to be appended to said incoming cell;

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appending to said incoming cell a specific routing label indicating that the incoming cell
is a cell to be returned on the connection; and

using said routing label by a protocol engine of said output adapter to transmit said cell
back to said input adapter, then over said ATM network from said input port of said input
adapter like a normal cell traveling on the connection in the opposite direction wherein
said specific routing label is appended to said incoming cell only if the loop control bit is
set by the control point of said switching node in said output adapter and said specific
routing label is an identification of said output port to indicate to the protocol engine of
said output adapter that said incoming cell should be treated as a normal cell of said
connection entering into said output port as if it were traveling on the connection in the
opposite direction.

5.   (Previously Presented)   The method according to claim 4, wherein said incoming cell to
       be looped back is transferred by said protocol engine of said output adapter to an internal
       port of said output adapter, said internal port being only used for incoming cells when
       said loopback flag is appended to said incoming cell.

6.   (Previously Presented)   The method according to claim 5, wherein said internal port is used
       as a second input port of said output adapter for receiving said incoming cell to be looped
       back, which cell is treated as a normal cell of the connection entering said output port in
       view of said identification of said output port appended thereto.

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7.   (Currently Amended)   A system for transmitting a loopback cell of a connection established between a source ATM device and a destination ATM device of an ATM network, said loopback cell being returned at one of at least one switching nodes located on the connection route, said loopback cell entering said switching node by an input port of an input adapter, before being switched to an output adapter as would a normal cell of said connection, and being then switched backward to said input adapter and exiting the switching node by said input_port of said input adapter instead of an output port of said output adapter as would [[a]] the normal cell of said connection, said system comprising:

means in said switching node for setting a control bit in said output adapter if loopback is permitted in said switching node;

means for detecting in said output adapter whether an incoming cell includes a loopback condition;

means for appending to any incoming cell which includes said loopback condition a specific routing label indicating that the incoming cell is a cell to be returned on the connection; and

means for using said routing label by a protocol engine [[of]] on said output adapter to transmit said cell back to said input adapter, then over said ATM network from said input port of said input adapter like [[a]] the normal cell traveling on the connection in the opposite direction.

8.   (Currently Amended)   The system according to claim 7, wherein said specific routing label is appended to said incoming cell only if [[a]] the loop control bit is set by [[a]] the control point of said switching node in said output adapter.

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9.   (Previously Presented)   The system according to claim 8, wherein said specific routing
      label is an identification of said output port to indicate to the protocol engine of said
      output adapter that said incoming cell should be treated as a normal cell of said
      connection entering into said output port as if it were traveling on the connection in the
      opposite direction.

10.   (Currently Amended)   ~~The system according to claim 9, wherein~~ A system for
      transmitting a loopback cell of a connection established between a source ATM device
      and a destination ATM device of an ATM network, said loopback cell being returned at
      one of at least one switching nodes located on the connection route, said loopback cell
      entering said switching node by an input port of an input adapter, before being switched
      to an output adapter as would a normal cell of said connection, and being then switched
      backward to said input adapter and exiting the switching node by said input port of said
      input adapter instead of an output port of said output adapter as would the normal cell of
      said connection, said system comprising:

      means for detecting in said output adapter whether an incoming cell includes a loopback
      condition;

      means for appending to any incoming cell which includes said loopback condition a
      specific routing label indicating that the incoming cell is a cell to be returned on the
      connections wherein said specific routing label is appended to said incoming cell only if a
      loop control bit is set by a control point of said switching node in said output adapter and

      said specific routing label is an identification of said output port to indicate to the
      protocol engine of said output adapter that said incoming cell should be treated as a

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normal cell of said connection entering into said output port as if it were traveling on the connection in the opposite direction;

means to append a loopback flag ~~is appended~~ to said incoming cell if said loop control bit is set in order to indicate to the protocol engine of said output adapter that said identification of said output port has to be appended to said incoming cell; and

means for using said routing label by a protocol engine of said output adapter to transmit said cell back to said input adapter, then over said ATM network from said input port of said input adapter like a normal cell traveling on the connection in the opposite direction.

11. (Previously Presented) The system according to claim 10, wherein said incoming cell to be looped back is transferred by said protocol engine of said output adapter to an internal port of said output adapter, said internal port being only used for incoming cells when said loopback flag is appended to said incoming cell.

12. (Previously Presented) The system according to claim 11, wherein said internal port is used as a second input port of said output adapter for receiving said incoming cell to be looped back, which cell is treated as a normal cell of the connection entering said output port in view of said identification of said output port appended thereto.

13. (New) The system of claim 7 wherein the means in said switching node for setting the control bit includes a control point of the switching node.

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